

WE CLAIM:

1. A method for aggregating and retrieving a variety of data and associated metadata within a computer database and making the data accessible via an online user interface over a distributed network, the method comprising:

- 5 loading the data and the associated metadata into the computer database via a content manager;
- receiving from a user a request to access the data;
- in response to receiving the request, launching the online user interface displaying at least one view of the computer database;
- 10 receiving a selection of one or more functions of the online user interface, the selection representing a desired query;
- in response to receiving the desired query, searching the data and the associated metadata to retrieve one or more results that match the desired query;
- displaying the results that match the desired query via the online user
- 15 interface;
- associating one or more of the results to add to an existing association of data or to create a new association of data; and
- displaying the existing or new association of data via the online user interface.

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2. The method of claim 1, wherein the computer database comprises a repository, the data comprises one or more document visuals, the associated metadata comprises one or more attributes of each document visual, the association of data comprises a visual presentation, and the content manager comprises an administrative

25 user interface for loading the document visuals and the attributes into the repository.

3. The method of claim 2, wherein the repository comprises one or more attribute tables and one or more relational tables defining linking relationships between the attributes of the document visuals and the document visuals such that multiple

attributes may be assigned to each document visual and wherein one copy of each document visual is loaded into the repository and the one copy of a document visual is retrieved in response to the document visual matching the desired query.

5           4.       The method of claim 3, wherein loading the data and associated metadata comprises:

                  creating and storing the one or more document visuals in the repository with each document visual having one or more attributes;

                  adding one or more users to the repository and assigning a primary  
10   geographic or a primary business division to a user profile of each user; and

                  creating and storing one or more visual presentations by associating one or more of the document visuals with a presentation.

                  5.       The method of claim 4, wherein loading the data and associated metadata  
15   further comprises at least one of the following:

                  creating and storing one or more templates, wherein the templates may be used to automatically populate one or more attributes of the document visuals; and

                  modifying one or more of the document visuals, one or more of the attributes, one or more of the user profiles, or one or more of the attribute tables.

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                  6.       The method of claim 4, wherein the content manager is further operative to assign a primary repository role to each user based on the primary geographic or business division assigned to the user wherein the primary repository role of the user determines the at least one view of the database displayed to the user via the online user  
25   interface upon receiving the request to access the data.

                  7.       The method of claim 6, wherein a view of the database is established for each geographic or business division wherein each view provides access to just the document visuals and the visual presentations having as an attribute the primary  
30   geographic or business division assigned to the user and wherein searching the data and

associated metadata comprises searching just the document visuals, the visual presentations, and the attributes provided by the view.

5           8.     The method of claim 4, wherein each user profile comprises a username, a password, and the primary geographic or business division assigned to the user and wherein the request to access the data comprises submitting a username and a password to access the data.

10           9.     The method of claim 7, wherein a secondary repository role may be assigned to a user such that the online user interface further displays a second view that includes the document visuals and the visual presentations having the geographic or business division associated with the secondary repository role assigned as an attribute.

15           10.    The method of claim 9, wherein the secondary repository role is assigned an expiration date and wherein after the secondary repository role has expired or is revoked the at least one view further includes one or more private presentations created and stored prior to the expiration date or being revoked and having the geographic or business division associated with the secondary repository role assigned as an attribute.

20           11.    The method of claim 4, wherein the visual presentations comprise at least one of the following:

                  one or more private presentations accessible by a single user;  
                  one or more shared presentations accessible by all the users within one or more geographic or business divisions; and  
25                one or more global presentations accessible by in all users.

                  12.   The method of claim 11, wherein the attributes comprise at least one of the following:

                  a description of each document visual;  
30                one or more key words for each document visual;

an expiration date for each document visual;  
a source information date for each document visual;  
a creation date of each document visual;  
an update date for updated document visuals;  
5 at least one super-category and category assigned to each document visual  
wherein each category is associated with a super-category;  
at least one business process step assigned to each document visual; and  
at least one geographic or business division assigned to each document  
visual.

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13. The method of claim 12, further comprising:  
generating one or more repository reports monitoring the contents of the  
repository wherein the reports comprise at least one of the following:  
a new document visual report including a listing of new documents  
15 added to the repository in the last X days wherein X is a variable number;  
an updated document visual report including a listing of documents  
that have been updated in the repository;  
an expired document report including a listing of documents in the  
repository that have expired;  
20 a keyword report including a listing of documents in the repository  
and the keywords associated with each document;  
a presentation report including a listing the presentations defined in  
the repository, a creation date of each presentation, an update date of one  
or more presentations, a presentation type indicator for each presentation,  
25 an expiry date of one or more presentations;  
an advertising rate update report including an automatically  
updated listing of the cost of advertising in one or more directories or on  
an Internet website;  
a usage report including a listing of usage tracking showing  
30 repository login activity by users of the repository; and

a user report including a listing of one or more user profiles of the users of the repository.

14. The method of claim 12, wherein the document visuals comprise one or more collateral documents for supporting the sale of ads in advertising directories and the attributes further comprise one or more headings associated with one or more document visuals and the super-categories comprise local directory visuals or rates, product visuals, business directory visuals, and heading visuals.

15. The method of claim 14, wherein the collateral documents comprise at least one of the following:

one or more local directory visuals wherein the attributes further comprise at least one directory associated with the local directory visuals; and

one or more directory rate sheets wherein the attributes further comprise at least one directory associated with the directory rate sheet wherein the directory rates are automatically updated from a remote system.

16. The method of claim 12, wherein creating and storing one or more document visuals having one or more attributes comprises:

selecting and opening one or more document visual files containing the document visuals to be added to the repository wherein the open files are displayed on the administrative user interface;

assigning one or more attributes to the open document visuals; and

saving the open document visuals and the attributes to the repository.

17. The method of claim 16, wherein assigning one or more attributes comprises utilizing a template to automatically populate one or more attribute fields in the administrative user interface wherein the template may be repeatedly used for document visuals having common attributes.

18. The method of claim 4, wherein the users are added by a repository administrator or automatically added and assigned a primary geographic or business division from a remote payroll system whenever a user is added to the remote payroll system.

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19. The method of claim 4, wherein creating and storing one or more presentations comprises:

selecting a category from which to associate the document visuals wherein the category is an attribute of one or more document visuals and wherein each category is associated with a super-category;

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retrieving and displaying a list of documents visuals having the selected category as an attribute;

selecting and determining the order of one or more document visuals from the list to associate in a presentation;

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selecting a presentation type that determines access to the presentation wherein the presentation type comprises a global, a shared, or a private presentation;

in response to a global presentation type being selected, assigning access to the presentation to all geographic or business divisions;

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in response to a shared presentation type being selected, assigning access to the presentation to one or more geographic or business divisions;

in response to a private presentation type being selected, assigning access to a user wherein each user is assigned a primary geographic or business division based on the user profile of the user; and

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naming and saving the presentation to the repository.

20. The method of claim 12, wherein modifying the attribute tables comprises at least one of the following:

updating a category or super-category table wherein every category is associated with at least one super-category wherein the super-categories broadly classify

each document visual and the categories organize the document visuals and define a path where a document visual is physically stored in the repository;

updating a link table representing links to web sites related to specific geographic or business divisions or all geographic or business divisions and displayed on the on-line user interface of the geographic or business division assigned;

updating a directory table having a directory name, a directory number, an Internet directory number, a corresponding state code, and a corresponding geographic or business division identification wherein the directories are referenced in response to a query of local visuals and rates;

updating a division table representing all the geographic or business divisions available as an attribute in the repository and containing a default repository role and a default database view for each division wherein the views provide access to just the document visuals of an assigned division and wherein a view for a manager provides access to the document visuals from all divisions and to all private presentations from a primary geographic or business division assigned to the manager;

updating a heading table representing all the headings associated with document visuals and headings formerly associated with document visuals and retained as inactive for archival purposes;

updating a business process steps table identifying the steps of a business process that may be assigned to a document visual and a status wherein when assigned to a document visual associates the document visuals with all business process steps; and

updating a state table identifying the states where the directories are published.

21. The method of claim 12, wherein modifying a user profile comprises changing a repository role for a user or assigning a secondary role to a user wherein the secondary role has an expiration date.

22. The method of claim 12, wherein modifying a document visual comprises expunging a document visual from the repository or updating the document visual and

replacing a previous version of the document visual in a same storage location without updating attributes or saving the document visual to the repository.

23. The method of claim 12, wherein the super-categories comprise:  
5 a first main category representing one of local document visuals and local rates of an advertising directory covering a market region;  
a second main category representing document visuals of advertising products from categories having one or more document visuals associated with them;  
a third main category representing document visuals related to a business  
10 directory; and  
a fourth main category representing document visuals associated with one or more advertising headings.

24. The method of claim 7, wherein the functions of the online user interface  
15 comprise at least one of the following:  
retrieving one or more document visuals based on a query including a super-category and category;  
retrieving an account history of one or more customers based on a query including a customer telephone number;  
20 retrieving one or more visual presentations based a query including one or more presentations;  
retrieving the document visuals based on a query including one or more key words;  
retrieving one or more document visuals based on a query including a  
25 request for documents added in the last X days, wherein X represents a variable number of days.  
retrieving the documents visuals from among all categories and super-categories based on a query including a business process step;  
retrieving one or more private presentations based on a query including  
30 one or more private presentation;

retrieving one or more new document visuals added since a last request for access to the data based on a query including a super-category; and

accessing one or more links from the online user interface where the links are associated in a link table in the repository with the geographic or business division assigned to the user;

accessing electronic mail and message features via an icon displayed on the online user interface; and

accessing a folder structure of downloaded document visuals, search results and presentations via a link displayed on the online user interface.

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25. The method of claim 24, wherein the results that match the desired query comprise one or more retrieved document visuals, further comprising at least one of the following:

viewing the retrieved document visuals via the online user interface;

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printing the retrieved document visuals;

downloading the retrieved document visuals to a remote computer;

transmitting the retrieved document visuals via electronic mail or facsimile; and

20 associating one or more of the retrieved document visuals into one or more visual presentations wherein the visual presentations comprise one or more private presentations accessible by the user.

26. The method of claim 25, wherein the results that match the desired query comprise one or more retrieved visual presentations, further comprising at least one of the following:

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viewing the retrieved visual presentations via the online user interface;

concatenating the document visuals associated with the retrieved the presentations and printing the retrieved visual presentations;

downloading the retrieved visual presentations to a remote computer;

transmitting the retrieved visual presentations via electronic mail or facsimile; and

merging one or more of the retrieved visual presentations into one or more private presentations accessible by the user.

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27. The method of claim 25, wherein the visual presentations further comprise one or more shared and one or more global presentations, further comprising at least one of the following:

at least one of viewing and making into a private presentation at least one of the shared presentations and the global presentations;

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at least one of creating, renaming, playing, modifying, downloading, printing, deleting, and posting to a website one or more private presentations; and

creating a new private presentation by merging two or more of the visual presentations.

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28. The method of claim 26, wherein the user comprises a manager with administrative access and wherein the online user interface function selections are searched among all the document visuals with any geographic or business division as an assigned attribute and among all visual presentations with the primary geographic or business division assigned to the manager as an assigned attribute, further comprising making a private presentation into a shared presentation accessible by all users associated with one or more geographic or business divisions.

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29. A computer readable medium containing computer executable instructions which when executed by a computer perform a method for aggregating and retrieving a variety of documents within a repository and making the documents accessible via an online user interface over a distributed network, the method comprising:

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receiving from a user a request to access the documents;

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in response to receiving the request, rendering the online user interface displaying a view of the repository;

receiving a selection of a repository query;  
in response to receiving the selection, searching the documents and one or more associated attributes and retrieving one or more documents that match the repository query wherein the one copy of the one or more documents is retrieved in response to the documents matching the repository query; and  
5 displaying the documents that match the repository query via the online user interface.

30. The computer readable medium of claim 29, further comprising prior to  
10 receiving the request to access the documents, publishing the documents and the associated attributes to the repository via an administrative interface wherein one copy of each document is published to the repository and wherein publishing the documents and the associated attributes to the repository via the administrative interface comprises:

creating and storing the one or more documents in the repository with each  
15 document having one or more attributes;

adding one or more users to the repository and assigning a primary division to a user profile of each user wherein the primary division represents a geographic or business area;

creating and storing one or more visual presentations by associating the  
20 documents wherein the visual presentations are private, shared, or global;

creating and storing one or more templates, wherein the templates may be used to automatically populate one or more attributes of the documents; or

modifying one or more of the documents, one or more the attributes, one or more user profiles, or one or more attribute tables.

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31. The computer readable medium of claim 30, further comprising assigning a primary role to each user based on the primary division assigned to the user wherein the primary role of the user determines the view of the repository queries displayed to the user via the online user interface wherein a view of the repository queries is established  
30 for each division wherein the view provides access to just the documents associated with

the division for which the view is established and wherein searching the documents and associated attributes comprises searching just the documents provided by the view.

5           32.    The computer readable medium of claim 30, wherein the associated attributes comprise a description of each document, one or more key words for each document, an expiration date for each document, a source information date for each document, at least one super-category and category assigned to each document wherein each category is associated with a super-category, at least one business process step assigned to each document, and at least one division assigned to each document.

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          33.    The computer readable medium of claim 29, wherein the repository queries are operative to:

                  retrieve one or more documents by searching for one or more categories;

                  retrieve an account history of one or more customers by searching for a  
15   customer telephone number;

                  retrieve the documents by searching for one or more key words;

                  retrieve the documents by searching for documents added in the last X days, wherein X represents a variable number of days; or

                  retrieve the documents added since a last request for access by searching  
20   for a super-category; or

                  retrieve one or more presentations by searching for presentations associated with the view.

          34.    The computer readable medium of claim 29, further comprising:

25                   printing the documents matching the repository query;

                  downloading the documents matching the repository query;

                  transmitting the documents matching the repository query via electronic mail or facsimile; or

                  associating one or more of the documents matching the repository query  
30   into one or more private presentations accessible by the user.

35. The computer readable medium of claim 33, wherein the presentations comprise one or more private presentations accessible by a current user, one or more shared presentations shared among one or more entire divisions, or one or more global presentations shared among all divisions, further comprising:

- 5 viewing or making into a private presentation one or more of the shared or global presentations;
- creating a private presentation by merging two or more of the presentations; and
- creating, renaming, playing, modifying, downloading, printing, deleting,
- 10 or posting to a website one or more private presentations.

36. A system for aggregating and retrieving a variety of data and associated metadata and making the data accessible over a distributed network, the system comprising:

- 15 a memory;
- a repository containing:
  - one or more document visuals, wherein each document visual has associated metadata comprising one or more attributes of each document visual;
  - one or more attribute tables and one or more relational tables
  - 20 defining linking relationships between the attributes of the document visuals and the document visuals such that multiple attributes may be assigned to each document visual and wherein one copy of each document visual is loaded into the repository and the one copy of a document visual is retrieved in response to the document visual matching a desired query;
  - 25 one or more users to the repository wherein each user has a primary geographic or a primary business division assigned to a user profile of each user;
  - a display unit; and
  - a processor executing computer executable instructions for providing an
  - 30 online user interface operative to:

receive from a user a request to access the document visuals;  
in response to receiving the request, display at least one view of  
the repository;

5 receive a selection of one or more functions of the online user  
interface, the selection representing a desired query;

in response to receiving the desired query, search the document  
visuals and the associated attributes to retrieve one or more results that match the  
desired query;

10 display the results that match the desired query via the online user  
interface;

associate one or more of the results to add to an existing  
association of document visuals or to create a new association of document  
visuals; and

15 display the existing or new association of document visuals via the  
online user interface wherein the new or existing association of document visuals  
comprise a visual presentation.

37. The system of claim 36, further comprising a processor executing  
computer executable instructions operative to:

20 create and store one or more templates, wherein the templates may be used  
to automatically populate one or more attributes of the document visuals;

modify one or more of the document visuals, one or more of the attributes,  
one or more of the user profiles, and one or more of the attribute tables; and

25 assign a primary repository role to each user based on the primary  
geographic or business division assigned to the user wherein the primary repository role  
of the user determines the at least one view of the repository displayed to the user via the  
online user interface upon receiving the request to access the document visuals, wherein a  
view of the repository is established for each geographic or business division wherein  
each view provides access to just the document visuals and the visual presentations  
30 having as an attribute the primary geographic or business division assigned to the user

and wherein searching the document visuals and associated attributes comprises searching just the document visuals, the visual presentations, and the attributes provided by the view.

5           38.     The system of claim 37, wherein the attributes comprise at least one of the following:

- a description of each document visual;
- one or more key words for each document visual;
- an expiration date for each document visual;
- 10           a source information date for each document visual;
- a creation date of each document visual;
- an update date for updated document visuals;

at least one super-category and category assigned to each document visual  
wherein each category is associated with a super-category wherein the super-  
15           categories include at least one of the following:

- a first main category representing one of local document visuals  
and local rates of an advertising directory covering a market region;
- a second main category representing document visuals of  
advertising products from categories having one or more document visuals  
20           associated with them;
- a third main category representing document visuals related to a  
business directory; and
- a fourth main category representing document visuals associated  
with one or more advertising headings;
- 25           at least one business process step assigned to each document visual; and
- at least one of a geographic and a business division assigned to each  
document visual.

39. The system of claim 38, wherein the functions of the online user interface operative to:

retrieve one or more document visuals based on a query including a super-category and category;

5 retrieve an account history of one or more customers based on a query including a customer telephone number;

retrieve one or more visual presentations based a query including one or more presentations;

10 retrieve the document visuals based on a query including one or more key words;

retrieve one or more document visuals based on a query including a request for documents added in the last X days, wherein X represents a variable number of days.

15 retrieve the documents visuals from among all categories and super-categories based on a query including a business process step;

retrieve one or more visual presentations based on a query including one or more visual presentation;

retrieve one or more new document visuals added since a last request for access to the data based on a query including a super-category; and

20 access one or more links from the online user interface where the links are associated in a link table in the repository with the geographic or business division assigned to the user.

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